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Each year since 1972, three state agencies have collaborated to create the *Indiana Fish Consumption Advisory*. These state agencies include the Department of Natural Resources (DNR), the Indiana Department of Environmental Management (IDEM) and the Indiana State Department of Health (ISDH). The *Indiana Fish Consumption Advisory*, published annually by the ISDH, provides Hoosier anglers with health information about eating sport caught fish from Indiana waters. Each state agency plays a role in this endeavor. The DNR promotes the advisory in their annual fishing guide. Every licensed angler in the state receives a copy of the DNR fishing guide. IDEM collects fish from across the state to test for environmental contaminants. Using a risk based approach, ISDH interprets these data provided by IDEM and the publishes the advisory.

The 2002 *Indiana Fish Consumption Advisory* is based on levels of polychlorinated biphenyls (PCBs) and mercury found in fish tissue. PCBs are synthetic oils once widely used in electrical transformers and capacitors. Though banned for use by the federal government in the 1970's, PCBs are still found in the environment today because they break down very

slowly. Based on cancer studies involving laboratory animals, the US Department of Health and Human Services has stated that PCBs may reasonably be anticipated to be carcinogens. Mercury is a naturally occurring metal that does not break down. Instead, it recycles between land, water and air. The primary source of mercury air deposition, however, is believed to be from coal fired power plants and from burning household and industrial wastes. Excessive exposure to mercury, particularly in its methylated form, can lead to developmental problems during fetal growth and childhood.

PCBs and mercury can accumulate in organic tissue. Once introduced to the aquatic environment, they move up the food chain and bioaccumulate in larger organisms like fish. Typically, PCBs bind to fatty tissue while mercury binds to muscle tissue. Data collected by IDEM often show that omnivorous bottom feeding fish like carp and catfish have more PCBs than leaner, predatory fish like largemouth bass. However, largemouth bass often have higher levels of mercury in their tissue than carp or catfish. In general, older and larger fish have more contaminants than younger, smaller fish.

The *Indiana Fish Consumption Advisory* recommendations for consumption of sport caught fish range from "unlimited consumption" to "no consumption for adult males and females". However, more restrictive consumption limits are placed for at risk, sensitive populations. Sensitive populations are identified as women who are of childbearing age and children under 15 years of age. A woman's exposure before pregnancy is a major concern; therefore, women should follow the advisory for several years before pregnancy. If PCBs or mercury have built up over time from prolonged exposure, it can take several years for the body to rid itself of the contaminant.

The goal of the *Indiana Fish Consumption Advisory* is not to discourage the consumption of fish, but to offer guidance when choosing to eat sport caught fish from Indiana waters. Fish is a good source of protein that is low in saturated fat. Research suggests consuming one half pound of fish per week is beneficial in preventing heart disease. Therefore, it is important to gain the benefits of eating fish while minimizing potential risk. Eating sport caught fish in moderation, by following the recommendations in the Indiana Fish Consumption Advisory, will allow you to gain the benefits of eating fish while avoiding potential long-term health risks.

You can reduce your risk by following some additional guidelines:

- 1.) Be selective about the locations where you catch fish. Choose areas where lower levels of contaminants are found in fish.
- 2.) Keep the small fish. Data show that younger, smaller fish have less contaminants than older, larger fish.
- 3.) Eat smaller fish meals. When you eat large fish, eat small servings. Freeze the rest and eat it over time.
- 4.) Clean and cook fish properly. A substantial amount of fat is found under the skin of the fish. Properly removing this fat can reduce the level of PCBs that may be present. Broiling, baking, or grilling fish so that fat drips away also reduces PCB levels.

The ISDH Environmental Epidemiology Section (EES) promotes the *Indiana Fish Consumption Advisory* through several different efforts. These efforts include direct mailings to citizens, local health departments, WIC clinics, state parks, state forests, fishery biologists, lake management districts, and solid and hazardous waste districts. In recent years, the EES has displayed Fish Consumption Advisory information at the Indiana State Fair and Minority Health Fair. Additional outreach materials were created by the EES to disseminate information about the advisory. These materials include the Expectant Mother's Guide brochures, Fish Advisory posters, and Fish Advisory magnets.

Information on the *Indiana Fish Consumption Advisory* is available by calling the ISDH Environmental Epidemiology Section at (317) 233-7055. In addition to the annually published booklet, the 2001 Fish Consumption Advisory is available on the ISDH web site at www.IN.gov/isdh/ (Click on Data and Statistics). The 2002 Fish Consumption Advisory should be available on the website soon.
